

***Streptococcus Pneumoniae****(Ear Infections, Pinkeye, Pneumonia)***What is *Streptococcus pneumoniae*?**

It is a bacteria that commonly causes ear infections in children. It also is the most common cause of community-acquired pneumonia and “pink-eye.”

Who is at risk for *Streptococcus pneumoniae*?

Anyone can become infected. However, people at higher risk for infection are the elderly, children younger than two, children who attend group day-care centers and people with underlying medical conditions.

What are the symptoms of *Streptococcus pneumoniae*?

Symptoms depend on the type of infection:

- If ear infection develops, symptoms may include ear pain, fever, balance problems, trouble sleeping and change in behavior.
- If pneumonia develops, symptoms may include sudden onset of high fever, productive cough, headache and shortness of breath.
- If pinkeye develops, symptoms may include discharge that may cause the lids to stick together, especially after sleeping, redness, tearing and a gritty feeling.

How soon do symptoms appear?

Symptoms may appear in one to three days. However, children are much more likely to carry this bacterium around in their noses and throats and not have any symptoms.

How is *Streptococcus pneumoniae* spread?

- Ear infections: There is no person-to-person spread; however, before and after cleaning the ear or adding drops, it is always good practice to wash hands thoroughly.
- Pneumonia: People spread pneumonia mostly through respiratory droplets from their nose or mouth, even if they don't have any symptoms.
- Pinkeye: People can get pinkeye by coming into contact with tears or discharges from the eyes of an infected person and then touching their own eyes.

When and for how long is a person able to spread the disease?

This will depend on the illness. With pneumonia, a person is usually no longer contagious after 24 to 48 hours of antibiotics. For other illnesses, consult with a health-care provider for prevention guidance.

How is a person diagnosed?

Diagnosis depends on the illness.

What is the treatment?

Most people with *Streptococcus pneumoniae* are treated with antibiotics.

Does past infection make a person immune?

Yes. A person does build immunity to *S. pneumoniae*; however, there are many different types of *S. pneumoniae* and one type does not cause immunity for another. So in a person's lifetime, he or she may become infected with several different types of *S. pneumoniae*.

Should children or others be excluded from day care, school, work or other activities if they have *Streptococcus pneumoniae*?

Children should be excluded from a child-care setting if the illness prevents the child from participating or if the child has a fever, lethargy, irritability, persistent crying or shortness of breath. If the staff feels that they are jeopardizing the health and/or safety of other children in the group by having to care for the child, the child also may be excluded.

Children with pinkeye that has white or yellow discharge, eye pain and redness of the eye and surrounding tissue should be excluded until examined by a physician and approved for re-admission.

What can be done to prevent the spread of *Streptococcus pneumoniae*?

A vaccine is available for the prevention of pneumococcal disease in infants and toddlers. The vaccine (PCV-7, Prevnar®) protects against seven different types of *S. pneumoniae*. Children are recommended to receive four doses at 2, 4, 6 and 12 to 15 months of age. The vaccine has been shown to be highly effective in preventing ear infections and pneumonia.

A vaccine also is available for adults. This vaccine (PPV-23, Pneumovax®) protects against 23 different types of *S. pneumoniae*. All adults age 65 and older should receive one dose. Also, anyone age 2 to 64 who is at high risk for pneumococcal disease should receive a dose. Contact your health-care provider to see if you are at high risk.

Additional Information:

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

- 1) American Academy of Pediatrics. *Red Book: 2003 Report of the Committee on Infectious Diseases*. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003:[127-128, 490-500]
- 2) Control of Communicable Disease Manual, 18th Edition-2004, Heymann, David, MD ed.

